# 510(k) Summary

Date Prepared: 21 May 2010

MAY 2 1 2010

# **Submitter Information**

Company Name and Address:	Contact Name:
ulrich GmbH & Co. KG Buchbrunnenweg 12 89081 Ulm Germany	Hans Stover, President and CEO ulrich medical USA 754 Spirit 40 Park Dr. St. Louis, MO 63005 USA Phone: 636-519-0268

# **Name of Device**

Trade Name: mambo™

• Common Name: Anterior Cervical System

• Classification Name and Reference:

Classification Name and Reference per Title 21 Code of Federal Regulation (CFR)	Product Code
Part 888, Orthopedic Devices, Subpart D – Prosthetic Devices, 888.3060, Spinal intervertebral body fixation orthosis	KWQ – Anterior Cervical System

# **Substantial Equivalence Claimed to Predicate Device**

- Spider Cervical Plating System, K052292, X-Spine Systems
- <u>CLSP</u>, K945700, Synthes (USA)
- ABC2 Anterior Cervical Plating System, K974706 and K0000486, Aesculap<sup>®</sup> Inc.

#### **Device Description**

mambo™ is a modular implant system for the anterior operative stabilization of the cervical spine (C2 to C7), only, consisting of cranial, caudal and extension plates as well as bone and revision screws of different sizes. Settling and clamping screws can be chosen for use of the mambo plate as a load-sharing (dynamic) or load-bearing (rigid) plate. The anterior cervical plates range in size from 20 mm to 142 mm to accommodate one to five segments of fixation. Bone and revision screws are available in lengths ranging from 13 mm to 19 mm.

K090861

## Intended Use and Indications for Use

mambo<sup>TM</sup> is intended for anterior operative stabilization of the cervical spine, (C2 to C7). The system is indicated for use in the temporary stabilization of the anterior spine during the development of cervical spinal fusion in patients with:

- Degenerative disc disease (DDD), defined as neck pain of discogenic origin with degeneration of the disc confirmed by history and radiographic studies
- Spondylolisthesis
- Trauma (i.e., fracture or dislocation)
- Spinal stenosis
- Curvatures (i.e., scoliosis, kyphosis, and/or lordosis)
- Tumor
- Pseudoarthrosis
- · Failed previous fusion

Warning: This device is not intended for screw attachment or fixation to the posterior elements (pedicles) of the cervical, thoracic, or lumbar spine.

# **Technological Characteristics**

mambo<sup>TM</sup> possesses the same technological characteristics as the predicate devices. These include basic design (plate-based screw system), material (titanium or titanium alloy), sizes (plate lengths and screw diameters and lengths are within the range(s) offered by the predicate systems) and intended use (as described above). The fundamental scientific technology of mambo<sup>TM</sup> is the same as previously cleared devices.

#### **Performance Data**

Static compression bending, tension bending and torsion, and dynamic compression bending of the worst case mambo<sup>TM</sup> construct was performed according to ASTM F1717. The mechanical test results demonstrated that mambo<sup>TM</sup> performs as well as or better than the predicate devices.

### **DEPARTMENT OF HEALTH & HUMAN SERVICES**

Public Health Service



Food and Drug Administration 10903 New Hampshire Avenue Document Control Room -- WO66-G609 Silver Spring, MD 20993-0002

Ulrich GmbH & Co. KG % Mr. Hans Stover President and CEO ulrich medical USA 754 Spirit 40 Park Dr. St. Louis, MO 63005

MAY 2 1 2010

Re: K090861

Trade/Device Name: mambo<sup>TM</sup>

Regulation Number: 21 CFR 888.3060

Regulation Name: Spinal intervertebral body fixation orthosis

Regulatory Class: Class II Product Code: KWQ Dated: March 23, 2010 Received: March 24, 2010

Dear Mr. Stover:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration. Please note: CDRH does not evaluate information related to contract liability warranties. We remind you, however, that device labeling must be truthful and not misleading.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the <u>Federal Register</u>.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must

# Page 2 –Mr. Hans Stover

comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); medical device reporting (reporting of medical device-related adverse events) (21 CFR 803); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (Sections 531-542 of the Act); 21 CFR 1000-1050.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please go to <a href="http://www.fda.gov/AboutFDA/CentersOffices/CDRH/CDRHOffices/ucm115809.htm">http://www.fda.gov/AboutFDA/CentersOffices/CDRH/CDRHOffices/ucm115809.htm</a> for the Center for Devices and Radiological Health's (CDRH's) Office of Compliance. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21CFR Part 807.97). For questions regarding the reporting of adverse events under the MDR regulation (21 CFR Part 803), please go to

http://www.fda.gov/MedicalDevices/Safety/ReportaProblem/default.htm for the CDRH's Office of Surveillance and Biometrics/Division of Postmarket Surveillance.

You may obtain other general information on your responsibilities under the Act from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 796-7100 or at its Internet address http://www.fda.gov/MedicalDevices/ResourcesforYou/Industry/default.htm.

Sincerely yours,

Mark N. Melkersol

Director Division of Surgical, Orthopedic

and Restorative Devices

Office of Device Evaluation

Center for Devices and Radiological Health

Enclosure

# 5.0 **ODE Indications Statement**

510(k) Number (if known):

Device Name: mambo<sup>TM</sup>, Anterior Cervical System

# **Indications for Use:**

mambo<sup>TM</sup> is intended for anterior operative stabilization of the cervical spine, C2 to C7). The system is indicated for use in the temporary stabilization of the anterior spine during the development of cervical spinal fusion in patients with:

- Degenerative disc disease (DDD), defined as neck pain of discogenic origin with degeneration of the disc confirmed by history and radiographic studies
- Spondylolisthesis
- Trauma (i.e., fracture or dislocation)
- Spinal stenosis
- Curvatures (i.e., scoliosis, kyphosis, and/or lordosis)
- Tumor
- Pseudoarthrosis
- Failed previous fusion

Warning: This device is not intended for screw attachment or fixation to the posterior elements (pedicles) of the cervical, thoracic, or lumbar spine.

Prescription Use: X	AND/OR	Over-the-Counter Use:
(21 CFR 801 Subpart D)		(21 CFR 807 Subpart C)

# (PLEASE DO NOT WRITE BELOW THIS LINE – CONTINUE ON ANOTHER PAGE IF NEEDED)

		ACTORITY OF		
	Concurrence	of CDRH, O	ffice of Device Ev	aluation (ODE)
(Divi	sion Sign-Off)			
Divis	sion of Surgical, O	rthopedic,		
and	Restorative Device	es		

510(k) Number <u>K040861</u>

Pslof 1